

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF ILLINOIS
EASTERN DIVISION**

XORAN TECHNOLOGIES, LLC,)
Plaintiff,)
v.)
PLANMECA USA, INC.,)
Defendant.)
No. 17 CV 7131
Judge Sara L. Ellis

OPINION AND ORDER

Plaintiff Xoran Technologies, LLC (“Xoran”) brings this suit against Defendant Planmeca USA, Inc. (“Planmeca”) under the patent laws of the United States including 35 U.S.C. §§ 271 and 281 alleging that Planmeca infringes claims 1-11 (“claims at issue”) of patent 7,551,711 (“the ‘711 Patent”) by manufacturing, importing, selling, and offering for sale ProMax 3D scanners. Planmeca moves to dismiss this suit for failure to state a claim on the grounds that the claims of the ‘711 Patent are ineligible for patent protection under 35 U.S.C. § 101 (“Section 101”). The Court denies Defendant Planmeca USA, Inc.’s motion to dismiss [18] because the claims at issue of the ‘711 Patent are not directed to abstract ideas and satisfy the requirements of Section 101 regarding eligibility for patent protection.

BACKGROUND¹

I. Claims at Issue

Xoran owns all right, title, and interest in the ‘711 Patent, which the United States Patent Office (“USPTO”) issued on June 23, 2009. The claims at issue of the ‘711 Patent relate to a Cone Beam Computed Tomography (“CBCT” or “CT”) scanner that also takes external images of a patient. The ‘711 Patent describes “[a] prior art CT scanner system” which “includes a plurality of cameras that take external images of the patient;” however, “[a] drawback to the prior CT scanner is that several cameras are needed to generate the three dimensional photographic image.” ‘711 patent col. 1, ll. 16-18, 23-25. Therefore, the ‘711 Patent discloses a CT scanner including a single camera for the purposes of taking external images of the exterior of a patient. The ‘711 Patent also discloses that a technician viewing a 3D CT image on a display can zoom out such that the 3D CT image changes to a corresponding 3D external image, or alternatively, the technician may view the 3D CT image and the 3D external image simultaneously on the display. ‘711 patent col. 1, ll. 51-56.

Claim 1 of the ‘711 Patent, the sole independent claim of the claims at issue, states:

A scanner comprising:

a gantry including a first arm section and a second arm section;

an x-ray source mounted to the first arm section;

an x-ray detector mounted to the second arm section;

¹ The facts in the background section are taken from plaintiff’s complaint and exhibits attached thereto and are presumed true for the purpose of resolving defendant’s motion to dismiss. *See Virnich v. Vorwald*, 664 F.3d 206, 212 (7th Cir. 2011); *Local 15, Int’l Bhd. of Elec. Workers, AFL-CIO v. Exelon Corp.*, 495 F.3d 779, 782 (7th Cir. 2007). A court normally cannot consider extrinsic evidence without converting a motion to dismiss into one for summary judgment. *Hecker v. Deere & Co.*, 556 F.3d 575, 582–83 (7th Cir. 2009). Where a document is referenced in the complaint and central to plaintiff’s claims, however, the Court may consider it in ruling on the motion to dismiss. *Id.* The Court may also take judicial notice of matters of public record. *Gen. Elec. Capital Corp. v. Lease Resolution Corp.*, 128 F.3d 1074, 1080–81 (7th Cir. 1997).

a camera mounted to one of the first arm section and the second arm section;

a motor that rotates the gantry about an axis of rotation, wherein the x-ray detector takes a plurality of x-rays images and the camera takes a plurality of external images as the gantry rotates;

a computer that generates a three dimensional CT image from the plurality of x-ray images and a three dimensional external image from the plurality of external images and stores the three dimensional CT image and the three dimensional external image; and

a display that displays the three dimensional CT image, wherein the three dimensional CT image changes to the three dimensional external image as the three dimensional CT image is zoomed outwardly.

‘711 Patent col. 3 ll. 44-59, col. 4 ll. 1-4.

II. Accused Products

Planmeca manufactures, imports, sells, and offers to sell ProMax 3D scanners. The ProMax 3D family of scanners includes the feature of being an all-in-one x-ray unit not only for 3D imaging but also 2D panoramic and cephalometric imaging. A Planmeca brochure states that they “are the first company to combine three different types of 3D data with one X-ray unit,” and that “[t]he Planmeca ProMax® 3D family brings together a Cone Beam Computed Tomography (CBCT) Image, 3D facial photo and 3D model scan into one 3D image.” Doc. 1 ¶ 15.

LEGAL STANDARD

A motion to dismiss under Rule 12(b)(6) challenges the sufficiency of the complaint, not its merits. Fed. R. Civ. P. 12(b)(6); *Gibson v. City of Chicago*, 910 F.2d 1510, 1520 (7th Cir. 1990). In considering a Rule 12(b)(6) motion to dismiss, the Court accepts as true all well-

pledged facts in the plaintiff's complaint and draws all reasonable inferences from those facts in the plaintiff's favor. *AnchorBank, FSB v. Hofer*, 649 F.3d 610, 614 (7th Cir. 2011). To survive a Rule 12(b)(6) motion, the complaint must not only provide the defendant with fair notice of a claim's basis but must also be facially plausible. *Ashcroft v. Iqbal*, 556 U.S. 662, 678, 129 S. Ct. 1937, 173 L. Ed. 2d 868 (2009); *see also Bell Atl. Corp. v. Twombly*, 550 U.S. 544, 555, 127 S. Ct. 1955, 167 L. Ed. 2d 929 (2007). "A claim has facial plausibility when the plaintiff pleads factual content that allows the court to draw the reasonable inference that the defendant is liable for the misconduct alleged." *Iqbal*, 556 U.S. at 678.

ANALYSIS

Planmeca argues that all of the claims of the '711 Patent are invalid because they are directed to an abstract idea, namely the taking and displaying different images of the same object, using a generic computer scanner. Xoran responds that the '711 Patent claims a statutory machine that falls within the scope of patentable subject matter. For the purposes of evaluating patent eligibility, the Court finds that claim 1 of the '711 patent is representative of the claims at issue, as it is the sole independent claim of the claims at issue, and the dependent claims recite only slight variations of independent claim 1. *See Elec. Power Grp., LLC v. Alstom S.A.*, 830 F.3d 1350, 1352 (Fed. Cir. 2016) (agreeing with the district court's treatment of a specific claim as representative and doing the same); *Planet Bingo, LLC. v. VKGS LLC*, 576 Fed. App'x. 1005, 1007 (Fed. Cir. 2014) (finding that analysis of the independent claims was sufficient as the dependent claims recited only slight variations of the independent claims).

Whether a claim recites patent-eligible subject matter pursuant to Section 101 is an issue of law. *In re Bilski*, 545 F.3d 943, 951 (Fed. Cir. 2008). The Federal Circuit has held "that patent eligibility can be determined at the Rule 12(b)(6) stage." *Aatrix Software, Inc. v. Green Shades*

Software, Inc., 882 F.3d 1121, 1125 (Fed. Cir. 2018) (citing *Genetic Techs. Ltd. v. Merial L.L.C.*, 818 F.3d 1369, 1373 (Fed. Cir. 2016); *Content Extraction & Transmission LLC v. Wells Fargo Bank, Nat'l Ass'n*, 776 F.3d 1343, 1346, 1351 (Fed. Cir. 2014)). However, if there are claim construction disputes at the Rule 12(b)(6) stage, either the Court must adopt non-moving party's constructions or resolve the disputes to whatever extent is needed to conduct the Section 101 analysis. *Aatrix*, 882 F.3d, 1125 (citing *BASCOM Glob. Internet Servs., Inc. v. AT&T Mobility LLC*, 827 F.3d 1341, 1352; *Content Extraction*, 776 F.3d at 1349; *Genetic Techs.*, 818 F.3d at 1373). It is noted that neither party has raised a dispute over any of the claim terms in the claims at issue in the '711 Patent. The Court thus proceeds with determining patent eligibility under Section 101. See *Genetic Techs.*, 818 F.3d at 1373-74 (explaining that the Federal Circuit has “repeatedly recognized that in many cases it is possible and proper to determine patent eligibility under 35 U.S.C. § 101 on a Rule 12(b)(6) motion” and that “[i]n many cases, too, evaluation of a patent claim’s subject matter eligibility under § 101 can proceed even before a formal claim construction”).

Section 101 defines patentable subject matter as “any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof.” 35 U.S.C. § 101. However, the Supreme Court has long held that an important implicit exception to Section 101 is that “[l]aws of nature, natural phenomena, and abstract ideas are not patentable.” *Alice Corp. Pty. Ltd. v. CLS Bank Int'l*, 134 S. Ct. 2347, 2354 (2014) (quoting *Ass'n for Molecular Pathology v. Myriad Genetics, Inc.*, 133 S. Ct. 2107, 2116 (2013)) (internal quotation marks omitted). There is a balance between the “concern that patent law not inhibit further discovery by improperly tying up the future use” of the building blocks of human ingenuity, *Alice*, 134 S. Ct. at 2354 (quoting *Mayo Collaborative Servs. v. Prometheus Labs., Inc.*, 132 S. Ct. 1289, 1301

(2012)) (internal quotation marks omitted), and the fact that “[a]t some level, ‘all inventions ... embody, use, reflect, rest upon, or apply laws of nature, natural phenomena, or abstract ideas.’” *Alice*, 134 S. Ct. at 2354 (quoting *Mayo*, 132 S. Ct. at 1293). Therefore, in applying the Section 101 exception, the Court must distinguish between patents that claim the building blocks of human ingenuity and those that integrate the building blocks into something more, thereby transforming them into patent-eligible inventions. *Alice*, 134 S. Ct. at 2354-55 (citing *Mayo*, 132 S. Ct. at 1294, 1303).

The Supreme Court identified in *Alice* a “framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts.” *Ultramercial, Inc. v. Hulu, LLC*, 772 F.3d 709, 714 (Fed. Cir. 2014) (quoting *Alice*, 134 S. Ct. at 2355). Step one requires determining “whether the claims at issue are directed to one of those patent-ineligible concepts.” *Ultramercial*, 772 F.3d at 714 (quoting *Alice*, 134 S. Ct. at 2355) (internal quotation marks omitted); *see Smart Sys. Innovations, LLC v. Chicago Transit Auth.*, 873 F.3d 1364, 1371 (Fed. Cir. 2017) (explaining that in step one of the *Alice* inquiry, “claims are construed in their entirety to ascertain whether their character as a whole is directed to exclude subject matter.”) (quoting *Internet Patents Corp. v. Active Network, Inc.*, 790 F.3d 1343, 1346 (Fed. Cir. 2015)) (internal quotation marks omitted). If the claims at issue are directed to one of those patent-ineligible concepts, then step two requires determining “whether the claims contain an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself.” *Ultramercial*, 772 F.3d at 714 (quoting *Alice*, 134 S. Ct. at 2355) (internal quotation marks omitted).

I. *Alice* Step One

Planmeca argues that independent claim 1 is directed to taking and displaying x-ray and external images of a patient, which is an abstract idea. Additionally, Planmeca argues that the use of a single camera, as opposed to multiple cameras as noted in the ‘711 Patent to be the state of the prior art, does not impact the underlying abstract idea of taking and displaying different images of the same object. Planmeca also addresses the zooming out aspect of claim 1, arguing that this aspect does not impact the underlying abstract idea related to displaying different images of the same object. Planmeca asserts that claim 1 is directed to an abstract idea for which Xoran merely invokes computers as a tool.

Xoran argues that Planmeca has described claim 1 at too high a level of abstraction and as such, ignores the tangible machinery components claim 1 requires. Xoran also argues that the proper way to determine whether the claims at issue are directed to an abstract idea is by comparing the claims at issue to claims already found to be directed to an abstract idea in previous cases, and in performing such comparative analysis, other abstract idea cases implicating computers share a common thread that has no connection to the ‘711 Patent.

Because “[t]he Supreme Court has not established a definitive rule to determine what constitutes an ‘abstract idea’ sufficient to satisfy the first step of the []*Alice* inquiry,” it is “sufficient to compare claims at issue to those claims already found to be directed to an abstract idea in previous cases.” *Enfish, LLC v. Microsoft Corp.*, 822 F.3d 1327, 1334 (Fed. Cir. 2016) (internal quotation marks omitted); *accord Galeco S.A. v. Arachnid 360, LLC*, 293 F. Supp. 3d 783, 789 (N.D. Ill. 2017). Xoran directs the Court to four cases in particular for comparative purposes: *Alice*, *Enfish*, *Smart Sys.*, and *Baxter Int'l, Inc. v. Carefusion Corp.*, No. 15-cv-9986,

2016 WL 2770787 (N.D. Ill. May 13, 2016).² Planmeca responds by citing to several cases as well: *Planet Bingo, Intellectual Ventures I LLC v. Symantec Corp.*, 838 F.3d 1307 (Fed. Cir. 2016), *Elec. Power Grp.*, and *FairWarning IP, LLC v. Iatric Systems, Inc.*, 839 F.3d 1089 (Fed. Cir. 2016). Looking at relevant cases relating to the *Alice* inquiry, the Court finds that the claims at issue are not directed to an abstract idea.

Beginning by identifying to what the claims at issue, construed in their entirety, are directed, claim 1 of the ‘711 Patent is directed to a scanner comprising: elements capable of taking both x-ray images and external images; a computer that generates a 3D CT image from the x-ray images and a 3D external image from the external images; and a display that displays the 3D CT image and, upon zooming out, the 3D external image. *See Thales Visionix Inc. v. United States*, 850 F.3d 1343, 1347 (Fed. Cir. 2017) (explaining that in performing step one of the *Alice* inquiry, the court “must ‘articulate what the claims are directed to with enough specificity to ensure the step one inquiry is meaningful’”). The Court agrees with Xoran that Planmeca misses the mark when asserting that the claimed subject matter is directed to taking and displaying x-ray and external images of a patient. *See FairWarning*, 839 F.3d at 1094

² Xoran submitted *Core Wireless Licensing S.A.R.L. v. LG Electronics, Inc.*, 880 F.3d 1356 (Fed. Cir. 2018) as supplemental authority, calling it “new precedential authority relevant to the fully briefed motion to dismiss.” Doc. 27. Although Xoran did not seek leave to file such supplemental authority, both Xoran and Planmeca submitted short statements as to their interpretations of this supplemental authority, and regardless, this Court is aware of the present landscape of Section 101 case law. *Core Wireless* provides yet another set of claims to use in a comparative analysis to the claims at issue of the ‘711 Patent. But the claims in *Core Wireless* are no more analogous to the claims at issue of the ‘711 Patent as those described in other cases, which will be discussed below, in which the use of a general computer (or mathematical equation or other conventional technology or abstract idea) did not doom the claims because the claims were drawn to specific non-abstract improvements in functionality addressing problems in the prior art. *See Core Wireless*, 880 F.3d at 1362 (finding the asserted claims were directed to an improved user interface and not the abstract idea of an index, after comparing the asserted claims to claims in *Enfish*, 822 F.3d at 1336, *Thales*, 850 F.3d at 1349, *Visual Memory LLC v. Nvidia Corp.*, 867 F.3d 1253, 1259 (Fed. Cir. 2017), and *Finjan, Inc. v. Blue Coat Systems, Inc.*, 879 F.3d 1299 (Fed. Cir. 2018)). Indeed, the claims at issue in the ‘711 Patent do not rest on the use of a computer or known technology alone, as evident by reading the claims at issue in the context of the background of the invention. *See ‘711 Patent* col. 1 ll. 16-25. Thus, the impact *Core Wireless* has on the decision in this case is negligible.

(explaining that “even though a claim can be abstracted to the point that it reflects a patent-ineligible concept … that claim may nevertheless be patent eligible if the claim language is directed to a patent-eligible *application* of that concept”) (citing *Rapid Litig. Mgmt. Ltd. v. CellzDirect, Inc.*, 827 F.3d 1042, 1050 (Fed. Cir. 2016)). While Planmeca’s assertion may summarize the overall goal achieved by the claimed subject matter, the claims at issue claim more than simply the idea of taking and displaying x-ray and external images of a patient.³ See *Baxter*, 2016 WL 2770787 at *9 (holding that the claims at issue must be considered as a whole). For example, by reading claim 1 of the ‘711 Patent in the context of the succinct background section, the problem with the prior art that the ‘711 Patent addresses is the need for *several* cameras to generate the 3D external image and the difficulty of using those cameras. ‘711 Patent col. 1 ll. 23-25; see *FairWarning*, 839 F.3d at 1093 (looking to the specification to determine what the claims at issue were directed to). Thus to solve that problem with the prior art, claim 1 of the ‘711 Patent claims, among other elements, *a* camera mounted to one of the first arm section and the second arm section, and a motor that rotates the gantry about an axis of rotation, wherein … the camera takes a plurality of external images as the gantry rotates. ‘711 Patent col. 3 ll. 49-54. Necessarily, then, the claims at issue are directed to more than just the idea of taking and displaying images, as claim 1 describes a scanner with specific improvements relating to the structure of the scanner.

Next, comparing the claims at issue, construed in their entirety, to case law discussing claims found to be directed to an abstract idea, the Court addresses the cases cited by the parties.

³ It appears that, where in *Baxter*, the non-prevailing argument was to limit the claim at issue, for the purposes of the Section 101 inquiry, to what the USPTO examiner found to be the novel aspect, here, Planmeca is arguing that the Court should wholly ignore what Xoran described in the ‘711 Patent to be the solution to problems with the prior art. See *Baxter*, 2016 WL 2770787 at *8; Doc. 20 at 7-8. However, this argument is equally unpersuasive, as ignoring claim language directed to improvements over the prior art would be at odds with considering the claim as a whole and articulating to what the claims are directed with specificity. See *Thales*, 850 F.3d at 1347; *Baxter*, 2016 WL 2770787 at *9.

However, an in-depth discussion of each of these cases individually is unnecessary, as none of them are directly analogous to the claims at issue of the ‘711 Patent. For example, many of the cited cases involve the distinction between specific improvements in computer-functionality, which generally has been held to be patentable, and uses of existing computers as tools in aid of processes focused on abstract ideas, which generally has been held not to be patentable. *Elec. Power Grp.*, 830 F.3d at 1354; *see FairWarning*, 839 F.3d at 1095 (finding that the focus of the claims was not on an improvement in computers as tools but on certain abstract ideas that use computers as tools); *Intellectual Ventures*, 838 F.3d at 1314 (finding that the patent-in-suit was merely applying “a well-known idea using generic computers ‘to the particular technological environment of the Internet’”) (citing *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1259 (Fed. Cir. 2014)); *Enfish*, 822 F.3d at 1336 (holding that the claims at issue were not directed to an abstract idea, but rather to a specific improvement to the way computers operate, embodied in a self-referential table); *Planet Bingo*, 576 Fed. App’x. at 1008 (finding that not only could the steps of the claims at issue be “carried out in existing computers long in use,” but they could also be “done mentally”) (quoting *Gottschalk v. Benson*, 409 U.S. 63, 67 (1972)); *Baxter*, 2016 WL 2770787 at *9-10 (finding that the claims at issue as to one of the patents-in-suit were “directed to a concrete, tangible instrument that utilizes a sampling detection technique, measuring battery voltage and current drain, to determine the time of remaining battery life and to issue applicable alert messages,” and that human thought had not just been replaced with a computer). However, the Section 101 inquiry regarding the claims at issue of the ‘711 Patent does not turn on this distinction, as the claims at issue are directed to a scanner which has structural improvements over the prior art. *See* ‘711 Patent col. 1 ll. 11-25, col. 3 ll. 44-59, col. 4 ll. 1-4. The recitation of a computer in claim 1 of the ‘711 Patent clearly is not analogous to any

of the cited cases because in the present case, the recitation of the computer is secondary to the problem the ‘711 Patent was trying to solve, namely the method of gathering external images (such that *then a computer could generate* a 3D external image from them). *See* ‘711 Patent col. 1 ll. 23-25. Because the claims at issue, when read in light of the specification, are directed to a scanner which purports to offer a structural improvement over the prior art, as opposed to the use of a computer, they are within the realm of patent eligible subject matter under Section 101.

Another sub-set of the cited cases address the interplay between improvements in technology and the application of well-known concepts. *See Smart Sys.*, 873 F.3d at 1372 (finding that the claims at issue were directed to the collection, storage, and recognition of data which has been held to be an abstract idea, rather than directed to a new type of bankcard, turnstile, or database, or a method for processing data that improved existing technological processes) (citing *Elec. Power Grp.*, 830 F.3d at 1353; *Content Extraction*, 776 F.3d at 1347); *Intellectual Ventures*, 838 F.3d at 1316-1318, 1319 (analogizing claims in one of the patents-in-suit to a corporate mailroom and finding that those claims were ineligible because they were directed to long prevalent fundamental practices and methods of organizing human activity) (finding a separate, single claim to be an abstract idea because it failed to claim a new method of a well-known idea or an improvement thereto); *Elec. Power Grp.*, 830 F.3d at 1351 (explaining that despite the claims “defining a desirable information-based result,” they were not limited to an inventive means of achieving that result and thus failed the tests for patent eligibility). Again these cases are not directly analogous to the claims at issue of the ‘711 Patent, as they address the collection and analysis of information or well-known processes, *without more*. As previously explained, the claims at issue are directed to more than just an abstract idea; the claims at issue are directed to a scanner possessing a structural improvement over the prior art. *See Smart Sys.*,

873 F.3d at 1372 (suggesting that had the claims been directed to a new apparatus or method improving existing technological processes, they may not have been deemed directed to an abstract idea). There is no fear that the claims at issue would preclude all taking and displaying of x-ray and external images of a patient, as the claims at issue are directed to a scanner with specific structural limitations.

Indeed, the claims at issue are not directed to, nor are they similar to: an algorithm, a mathematical formula, or the concept of hedging, *see Alice*, 134 S. Ct. at 2355-56 (summarizing the holdings of *Benson*, *Parker v. Flook*, 437 U.S. 584, 594-95 (1978), and *Bilski v. Kappos*, 561 U.S. 593 (2010)); the collection, storage and recognition of data, *see Smart Sys.*, 873 F.3d at 1372 (citing *Elec. Power Grp.*, 830 F.3d at 1353; *Content Extraction*, 776 F.3d at 1347); a computer-aided method for managing a game, *see Planet Bingo*, 576 Fed. App’x. at 1006, 1007; or applying a well-known idea using a generic computer to the Internet, *see Intellectual Ventures*, 838 F.3d at 1314 (citing *DDR Holdings*, 773 F.3d at 1259). The claims at issue are dissimilar from many kinds of claims found to be ineligible under Section 101. *See Intellectual Ventures*, 838 F.3d at 1313 (stating that “[t]he category of abstract ideas embraces ‘fundamental economic practice[s] ... including ‘longstanding commercial practice[s]’ and ‘method[s] of organizing human activity’ although the category of abstract ideas is not limited to such) (quoting *Bilski*, 561 U.S. at 611); *Enfish*, 822 F.3d at 1335 (explaining that as can be gleaned from the case law addressing step one of the *Alice* inquiry, fundamental economic and conventional business practices are often found to be abstract ideas, even if performed on a computer). Because the claims at issue of the ‘711 Patent are directed to a scanner with specific structural requirements, which when read in the context of the entire ‘711 Patent are explained as the improvement over the prior art, the claims at issue satisfy the requirements of Section 101.

II. *Alice* Step Two

Because the Court has found that the claims at issue of the ‘711 Patent are not directed to a patent-ineligible concept, it need not reach step two of the *Alice* inquiry. *See Ultramercial*, 772 F.3d at 714 (stating that *if* the claims at issue are directed to patent-ineligible concepts, *then* step two requires determining “whether the claims contain an element or combination of elements that is sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself”) (quoting *Alice*, 134 S. Ct. at 2355) (internal quotation marks omitted); *Elec. Power Grp.*, 830 F.3d at 1353 (stating that the first-stage filter sometimes ends the Section 101 inquiry) (citing *Alice*, 134 S. Ct. at 2355).

CONCLUSION

For the foregoing reasons, the Court denies Defendant Planmeca’s motion to dismiss [18]. Xoran’s claims 1-11 of the ‘711 Patent are directed to patent eligible subject matter under 35 U.S.C. § 101.

Dated: May 22, 2018



SARA L. ELLIS
United States District Judge